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(Original Signature of Member)

108TH CONGRESS
1ST SESSION

H. R. _____

To provide for a National Nanotechnology Research and Development
Program, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

Mr. BOEHLERT introduced the following bill; which was referred to the
Committee on _____

A BILL

To provide for a National Nanotechnology Research and
Development Program, and for other purposes.

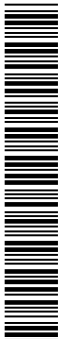
1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Nanotechnology Re-
5 search and Development Act of 2003”.

6 **SEC. 2. DEFINITIONS.**

7 In this Act—



1 (1) the term “advanced technology user facil-
2 ity” means a nanotechnology research and develop-
3 ment facility supported, in whole or in part, by Fed-
4 eral funds that is open to all United States research-
5 ers on a competitive, merit-reviewed basis;

6 (2) the term “Advisory Committee” means the
7 advisory committee established under section 5;

8 (3) the term “Director” means the Director of
9 the Office of Science and Technology Policy;

10 (4) the term “Interagency Committee” means
11 the interagency committee established under section
12 3(c);

13 (5) the term “nanotechnology” means science
14 and engineering aimed at creating materials, devices,
15 and systems at the atomic and molecular level;

16 (6) the term “Program” means the National
17 Nanotechnology Research and Development Pro-
18 gram described in section 3; and

19 (7) the term “program component area” means
20 a major subject area established under section
21 3(c)(2) under which is grouped related individual
22 projects and activities carried out under the Pro-
23 gram.



1 **SEC. 3. NATIONAL NANOTECHNOLOGY RESEARCH AND DE-**
2 **VELOPMENT PROGRAM.**

3 (a) IN GENERAL.—The President shall implement a
4 National Nanotechnology Research and Development Pro-
5 gram to promote Federal nanotechnology research, devel-
6 opment, demonstration, education, technology transfer,
7 and commercial application activities as necessary to en-
8 sure continued United States leadership in nanotechnology
9 research and development and to ensure effective coordi-
10 nation of nanotechnology research and development across
11 Federal agencies and across scientific and engineering dis-
12 ciplines.

13 (b) PROGRAM ACTIVITIES.—The activities of the Pro-
14 gram shall be designed to—

15 (1) provide sustained support for
16 nanotechnology research and development through—

17 (A) grants to individual investigators and
18 interdisciplinary teams of investigators; and

19 (B) establishment of interdisciplinary re-
20 search centers and advanced technology user fa-
21 cilities;

22 (2) ensure that solicitation and evaluation of
23 proposals under the Program encourage interdiscipli-
24 nary research;



1 (3) expand education and training of under-
2 graduate and graduate students in interdisciplinary
3 nanotechnology science and engineering;

4 (4) accelerate the commercial application of
5 nanotechnology innovations in the private sector;
6 and

7 (5) ensure that societal and ethical concerns
8 will be addressed as the technology is developed by—

9 (A) establishing a research program to
10 identify societal and ethical concerns related to
11 nanotechnology, and ensuring that the results
12 of such research are widely disseminated; and

13 (B) integrating, insofar as possible, re-
14 search on societal and ethical concerns with
15 nanotechnology research and development.

16 (c) INTERAGENCY COMMITTEE.—The President shall
17 establish or designate an interagency committee on
18 nanotechnology research and development, chaired by the
19 Director, which shall include representatives from the Na-
20 tional Science Foundation, the Department of Energy, the
21 National Aeronautics and Space Administration, the Na-
22 tional Institute of Standards and Technology, the Envi-
23 ronmental Protection Agency, and any other agency that
24 the President may designate. The Interagency Committee,
25 which shall also include a representative from the Office



1 of Management and Budget, shall oversee the planning,
2 management, and coordination of the Program. The Inter-
3 agency Committee shall—

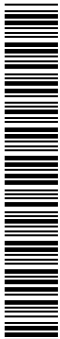
4 (1) establish goals and priorities for the Pro-
5 gram;

6 (2) establish program component areas, with
7 specific priorities and technical goals, that reflect the
8 goals and priorities established for the Program;

9 (3) develop, within 6 months after the date of
10 enactment of this Act, and update annually, a stra-
11 tegic plan to meet the goals and priorities estab-
12 lished under paragraph (1) and to guide the activi-
13 ties of the program component areas established
14 under paragraph (2);

15 (4) consult with academic, State, industry, and
16 other appropriate groups conducting research on and
17 using nanotechnology, and the Advisory Committee;
18 and

19 (5) propose a coordinated interagency budget
20 for the Program that will ensure the maintenance of
21 a balanced nanotechnology research portfolio and en-
22 sure that each agency and each program component
23 area is allocated the level of funding required to
24 meet the goals and priorities established for the Pro-
25 gram.



1 **SEC. 4. ANNUAL REPORT.**

2 The Director shall prepare an annual report, to be
3 submitted to the Committee on Science of the House of
4 Representatives and the Committee on Commerce,
5 Science, and Transportation of the Senate at the time of
6 the President's budget request to Congress, that
7 includes—

8 (1) the Program budget, for the current fiscal
9 year, for each agency that participates in the Pro-
10 gram and for each program component area;

11 (2) the proposed Program budget, for the next
12 fiscal year, for each agency that participates in the
13 Program and for each program component area;

14 (3) an analysis of the progress made toward
15 achieving the goals and priorities established for the
16 Program; and

17 (4) an analysis of the extent to which the Pro-
18 gram has incorporated the recommendations of the
19 Advisory Committee.

20 **SEC. 5. ADVISORY COMMITTEE.**

21 (a) IN GENERAL.—The President shall establish an
22 advisory committee on nanotechnology consisting of non-
23 Federal members, including representatives of research
24 and academic institutions and industry, who are qualified
25 to provide advice and information on nanotechnology re-
26 search, development, demonstration, education, technology



1 transfer, commercial application, and societal and ethical
2 concerns. The recommendations of the Advisory Com-
3 mittee shall be considered by Federal agencies in imple-
4 menting the Program.

5 (b) ASSESSMENT.—The Advisory Committee shall
6 assess—

7 (1) trends and developments in nanotechnology
8 science and engineering;

9 (2) progress made in implementing the Pro-
10 gram;

11 (3) the need to revise the Program;

12 (4) the balance among the components of the
13 Program, including funding levels for the program
14 component areas;

15 (5) whether the program component areas, pri-
16 orities, and technical goals developed by the Inter-
17 agency Committee are helping to maintain United
18 States leadership in nanotechnology;

19 (6) the management, coordination, implementa-
20 tion, and activities of the Program; and

21 (7) whether societal and ethical concerns are
22 adequately addressed by the Program.

23 (c) REPORTS.—The Advisory Committee shall report
24 not less frequently than once every 2 fiscal years to the
25 President and to the Committee on Science of the House



1 of Representatives and the Committee on Commerce,
2 Science, and Transportation of the Senate on its findings
3 of the assessment carried out under subsection (b), its rec-
4 ommendations for ways to improve the Program, and the
5 concerns assessed under subsection (b)(7). The first re-
6 port shall be due within 1 year after the date of enactment
7 of this Act.

8 (d) FEDERAL ADVISORY COMMITTEE ACT APPLICA-
9 TION.—Section 14 of the Federal Advisory Committee Act
10 shall not apply to the Advisory Committee.

11 **SEC. 6. NATIONAL NANOTECHNOLOGY COORDINATION OF-**
12 **FICE.**

13 The President shall establish a National
14 Nanotechnology Coordination Office, with full-time staff,
15 which shall—

16 (1) provide technical and administrative support
17 to the Interagency Committee and the Advisory
18 Committee;

19 (2) serve as a point of contact on Federal
20 nanotechnology activities for government organiza-
21 tions, academia, industry, professional societies, and
22 others to exchange technical and programmatic in-
23 formation; and

24 (3) conduct public outreach, including dissemi-
25 nation of findings and recommendations of the



1 Interagency Committee and the Advisory Committee,
2 as appropriate.

3 **SEC. 7. AUTHORIZATION OF APPROPRIATIONS.**

4 (a) NATIONAL SCIENCE FOUNDATION.—There are
5 authorized to be appropriated to the National Science
6 Foundation for carrying out this Act—

7 (1) \$350,000,000 for fiscal year 2004;

8 (2) \$385,000,000 for fiscal year 2005; and

9 (3) \$424,000,000 for fiscal year 2006.

10 (b) DEPARTMENT OF ENERGY.—There are author-
11 ized to be appropriated to the Secretary of Energy for car-
12 rying out this Act—

13 (1) \$197,000,000 for fiscal year 2004;

14 (2) \$217,000,000 for fiscal year 2005; and

15 (3) \$239,000,000 for fiscal year 2006.

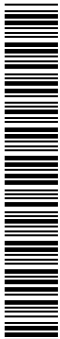
16 (c) NATIONAL AERONAUTICS AND SPACE ADMINIS-
17 TRATION.—There are authorized to be appropriated to the
18 National Aeronautics and Space Administration for car-
19 rying out this Act—

20 (1) \$31,000,000 for fiscal year 2004;

21 (2) \$34,000,000 for fiscal year 2005; and

22 (3) \$37,000,000 for fiscal year 2006.

23 (d) NATIONAL INSTITUTE OF STANDARDS AND
24 TECHNOLOGY.—There are authorized to be appropriated



1 to the National Institute of Standards and Technology for
2 carrying out this Act—

3 (1) \$62,000,000 for fiscal year 2004;

4 (2) \$68,000,000 for fiscal year 2005; and

5 (3) \$75,000,000 for fiscal year 2006.

6 (e) ENVIRONMENTAL PROTECTION AGENCY.—There
7 are authorized to be appropriated to the Environmental
8 Protection Agency for carrying out this Act—

9 (1) \$5,000,000 for fiscal year 2004;

10 (2) \$5,500,000 for fiscal year 2005; and

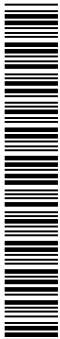
11 (3) \$6,000,000 for fiscal year 2006.

12 **SEC. 8. EXTERNAL REVIEW OF THE NATIONAL**
13 **NANOTECHNOLOGY RESEARCH AND DEVEL-**
14 **OPMENT PROGRAM.**

15 Not later than 6 months after the date of enactment
16 of this Act, the Director shall enter into an agreement
17 with the National Academy of Sciences to conduct periodic
18 reviews of the Program. The reviews shall be conducted
19 once every 3 years during the 10-year period following the
20 enactment of this Act. The reviews shall include—

21 (1) an evaluation of the technical achievements
22 of the Program;

23 (2) recommendations for changes in the Pro-
24 gram;



1 (3) an evaluation of the relative position of the
2 United States with respect to other nations in
3 nanotechnology research and development;

4 (4) an evaluation of the Program's success in
5 transferring technology to the private sector;

6 (5) an evaluation of whether the Program has
7 been successful in fostering interdisciplinary re-
8 search and development; and

9 (6) an evaluation of the extent to which the
10 Program has adequately considered societal and eth-
11 ical concerns.

